

We claim:

1. A fiber-reinforced metal-ceramic composite material having a hot ceramic side and a cool metal side and a graded ceramic-metal zone therebetween, wherein the ceramic content of said composite ranges from 100% at said hot ceramic side to 0% at said cool metal side and the metal content of said composite ranges from 0% at said hot ceramic side to 100% at said cool metal side, and wherein said fiber reinforcement is graded by coefficient of thermal expansion from said hot ceramic side to said cool metal side.
2. The fiber-reinforced metal-ceramic composite material of claim 1 wherein the fiber in the hot region has a lower coefficient of thermal expansion than the fiber in the cool region.
3. The fiber-reinforced metal-ceramic composite material of claim 1 wherein the fiber in the hot region has a higher coefficient of thermal expansion than the fiber in the cool region.